

ABSTRACT

The present invention relates to antimicrobial compositions, methods for the production of these compositions, and use of these compositions with medical devices, such as catheters, and implants. The compositions of the present invention advantageously provide varying release kinetics for the active ions in the compositions due to the different water solubilities of the ions, allowing antimicrobial release profiles to be tailored for a given application and providing for sustained antimicrobial activity over time. More particularly, the invention relates to polymer compositions containing colloids comprised of salts of one or more oligodynamic metal, such as silver. The process of the invention includes mixing a solution of one or more oligodynamic metal salts with a polymer solution or dispersion and precipitating a colloid of the salts by addition of other salts to the solution which react with some or all of the first metal salts. The compositions can be incorporated into articles or can be employed as a coating on articles such as medical devices.